

DEPARTMENT OF TRANSPORTATION**DIVISION OF ENGINEERING SERVICES**

Office of Structural Materials

Quality Assurance and Source Inspection



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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.9/14.3,0.0/1.6File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-000839**Date Inspected:** 14-Nov-2007**Project Name:** SAS Superstructure**OSM Arrival Time:** 2300**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 730**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Sha Zhi & Hua Li Wen**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** Caltrans Mock-Up & OBG Fab.**Summary of Items Observed:**

Caltrans Quality Assurance (QA) Inspector, Mike Hasler was present to observe the fitup, welding and related activities associated with the fabricating of Caltrans Mock-up, 77M, 89M, 114M and U-Rib Trial Assembly, for the San Francisco Oakland Bay Self Anchored Suspension Bridge, at Zhenhua Port Machinery Company (ZPMC) facility on Changxing Island.

ZPMC Quality Control (QC) Inspector, Mr. Fu Yu Hong informed Caltrans QA Inspector that ZPMC would be welding on Mock-Up 114M, Interior Skin Plate B and D, in Building #2. ZPMC was observed drilling bolt holes in split tee's for the OBG corner plate at Building #3. Caltrans QA Inspector Mr. Ken Jobs observed the welding activities for skin plate D. Caltrans QA Inspector performed the following observations.

Item Description	WBS	Dwg No.	Status
1 Skin Plate B	NA	NA	Welding

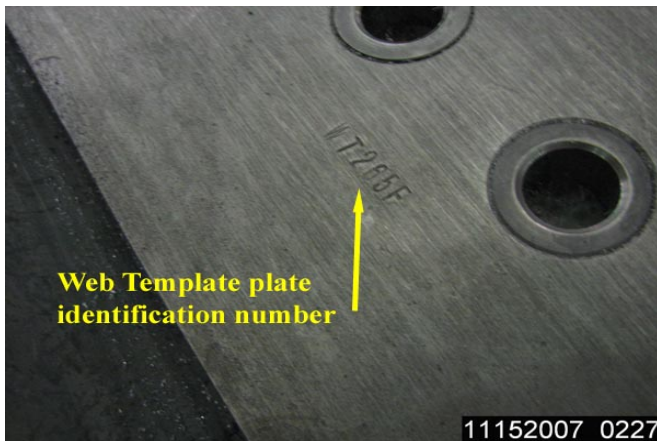
Mock-Up 114M, Interior Skin Plate B: Caltrans QA Inspector observed flux cored arc welding (FCAW), complete joint penetration (CJP) weld, longitudinal stiffener plate p920, joining skin plate A65, weld #1, fill pass weld in the flat position. The welder is identified as Mr. Bai Wenming, welder stamp 040434. The welder is using welding procedure specification WPS-B-T-2231-TC-U5-F, Revision 1. Caltrans QA observed ZPMC Quality Control inspector, Mr. Sha Zhi and Bureau Veritas (BV) inspector, Mr. Hua Li Wen, monitoring welding activities at the workstation. Caltrans QA Inspector measured current welding parameters at approximately 295 amps, 31.4 volts and 330 millimeters per minute (mm/min) travel speed. Preheat and interpass temperatures were verified during welding activities. The preheat temperature prior to the start of welding measures more than 110 Celsius (230 degree Fahrenheit) but less than 232 Celsius (450 degrees Fahrenheit) during maximum interpass temperature verification. FCAW welding consumable is verified and identified as Supercored 71H, classification E71T-1, diameter 1.4 mm (.055 inches). The following digital picture illustrates welding in progress.

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- 2 OBG Split Tee NA NA Drill Bolt Holes
- OBG Building #2; Caltrans QA Inspector observed ZPMC shop personal match drilling, split tee, bolt hole connections, at the web and flange. The two tee assemblies being drilled were identified as RS8C, PL76C.
- Caltrans QA Inspector observed template plates attached to the web and flange and held in place with clamps. The template plate for the web is identified as WT265F and WT265Y, flange.
- ZPMC QC inspector, Mr. Wang Xiang Pin verified template fitup, in accordance with the shop drawings requirements, prior to the drilling of the bolt holes and appeared to be in conformance with the project specifications. The following pictures illustrate the drilling of the bolt connections.



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Summary of Conversations:

As identified within the contents of this report.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Mazen Wahbeh, (818) 292-0659, who represents the Office of Structural Materials for your project.

Inspected By:	Hasler, Mike	Quality Assurance Inspector
Reviewed By:	Cuellar, Robert	QA Reviewer
